

Appl. No. 10/081,080
Amdt. Dated: August 28, 2006
Reply to Office Action of March 27, 2006

REMARKS

Claims 1-5 and 7-14 have been rejected and claims 1-5 and 7-14 remain for consideration upon the entry of the present response. No new matter has been added by the amendment.

Response to Arguments

The Examiner states on page 2 of the Office Action that "[t]he barbs retained the cap that is retained by a contact compartment, which is included in the housing. Therefore, the barbs through the retaining of the cap are part of the housings." (Emphasis added.)

Applicant respectfully submits however that the contact compartment 46 merely secures (i.e., fixedly holds) the cap 54 and does not retain (i.e., keeps in possession or contains) the cap 54.

Col. 3, lines 43-50 of Henry teach that the cap 54 includes the contact plate 38 with beams "38" (this reference numeral must be a typographical error for reference numeral "78") and the barbs 82 extend transversely from sides 79 of the beams 78. Accordingly, the barbs 82 are parts of the cap 54. Col. 3 lines 12-13 of Henry also teach that the housing 14 includes a contact retention chamber 42 that is divided into contact compartments 46. Accordingly, the contact compartment 46 is a part of the housing 14.

Further, Col. 3, line 67 to Col. 4, line 3 of Henry teaches that the caps 54 are inserted into the contact compartments 46 until the beams 78 are positioned between the partitions 50 and the interior walls 44 of the housing 14, and the barbs 82 on the beams 78 engage the partitions 50 to retain the cap 54 in place.

Therefore, it is respectfully submitted that the above means that the barbs 82 of the cap 54 are just means for holding the cap 54 by the contact compartment 46 of the housing 14 and not parts of the housing 14 themselves. Moreover, Henry recites expressly in its claim 1 that the housing 14 and the cap 54 are separate elements from each other (i.e., "a housing having first and second mating faces configured to engage mating contacts, said housing includes a contact retention chamber; a cap secured to said housing to close said contact retention chamber, said cap having a base end configured to engage a mating contact and an

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open end formed with beams"). Accordingly, the cap 54 and the housing 14 are different elements from each other and the barbs 82 cannot be part of the housing 14.

Claim Rejections Under 35 U.S.C. §112

Claims 11 and 13 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The Examiner states on page 3 of the Office Action that recitation of "...an annular hook being inserted into the coupling groove..." in claims 11 and 13 is different from "...an annular hook 35c engaged with a coupling groove 32c..." in the specification and that it constitutes new matter.

However, common dictionaries reflect that a hook is a curved or bent device for catching, holding, or pulling and a groove is a long narrow channel or depression. The hook and the groove in claims 11 and 13 are also curved or bent and channeled or depressed, respectively. Accordingly, if one tries to engage the hook with the groove, the hook or at least the curved or bent part of the hook must be inserted into the groove or at least the channeled or depressed part of the groove. This is obvious to every person skilled in the relevant art.

Therefore, Applicant respectfully submits that the recitation of "...an annular hook being inserted into the coupling groove..." in claims 11 and 13 does not constitute new matter and claims 11 and 13 contain subject matter which was described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention.

Claim Rejections Under 35 U.S.C. §102

Claims 1-5 and 7-14 are rejected under 35 U.S.C. §102(e) as being anticipated by Henry et al., U.S. Patent No. 6663439 for the reasons stated on pages 4-7 of the Office Action. Applicant respectfully traverses the rejection.

Claim 1 recites "[a] battery connector for a mobile phone, installed in a main body of the mobile phone and contacting a battery terminal to supply power to a printed circuit board (PCB) of the mobile phone, the battery connector comprising: a body having a plurality of plunger housings, each of the plunger housings having a coupling groove formed on an outer surface at a lower end of each of the plunger housings; a plurality of plungers each slidably

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installed in each of the plurality of plunger housings of the body; a plurality of base cover members each having a cylindrical connection part engaged with the coupling groove of each of the plurality of plunger housings, a bottom surface of each of the base cover members adhered to the PCB by soldering and made of conductive material; and a plurality of coil springs each biasing each of the plungers in each of the plunger housings against the bottom of each of the base cover members."

The Examiner states on page 4 of the Office Action that Henry discloses plunger housings having a coupling groove formed on an outer surface at a lower end of each of the plunger housings (i.e., the barbs 82 on the beams 78 engage the partitions 50 to retain the caps 54 in place, which in turn holds the springs 58, and the plunger contacts 23 in the contact compartments 46). The Examiner also states that Henry discloses a plurality of base cover members each having a cylindrical connection part engaged with coupling groove of each of the plurality of plunger housings (i.e., plunger contacts contain a rounded portion plunger portion wherein rectangular contact plates corresponding to the plunger contacts are disposed).

However, col. 3, lines 45-50 of Henry teach that the cap 54 includes the contact plate 38 with beams 38 (as is stated above, 38 must be a typographical error of 78) and the barbs 82 extend transversely from sides 79 of the beams 78. Thus, it is respectfully submitted that this means that the barbs 82 are parts of the beams 78 which are parts of the cap 54.

As the Examiner has pointed out, if the barbs 82 of Henry anticipate the coupling groove 32c of Claim 1, the coupling groove 32c must be on the base cover member 35 of Claim 1 instead of the plunger housing 32, because the barbs 82 are parts of the cap 54 which corresponds to the base cover member 35 of the present invention recited in Claim 1. It is apparent that the coupling groove 32c is formed on an outer surface of the plunger housing 32 as recited in Claim 1.

Moreover, the coupling groove 32c of Claim 1 is a long narrow channel or depression as mentioned above. On the contrary, the barbs 82 are sharp projections extending backward (as from the point of an arrow or fishhook) and prevent easy extraction or sharp projections with their points similarly oblique to something else, according to either of common dictionaries or Henry.

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In other words, the Examiner states that the **plunger housings having a coupling groove** are the equivalents of the **barb on the beam** in Henry. It is respectfully submitted that even if Applicant was to concede that the barb is the counterpart of the hook, which is a part of the base cover member, the barb is distinguishable from at least the coupling groove in the plunger housing.

The interior wall (44) and housing (14), included in the contact compartment, do not include a structure that is similar to the "groove" in the instant invention. Therefore, structurally, it is inevitable that the beam of the cap allow an "interference fit". Also, in the instant invention, the hook is included in the groove, and therefore, the two are distinguishable with respect to bonding strength, disassembly, and the limitations of reassembly.

Therefore, Applicant respectfully submits that Henry fails to teach, either expressly or inherently, at least the element "each of the plunger housings having a coupling groove", as recited in Claim 1. Claim 12 depends from Claim 1 and is believed to be allowable at least due to its dependency on Claim 1.

Claim 2 also includes the element "the housing having a coupling groove formed on an outer surface at a lower end of the housing", and Applicant submits that it is patentable over Henry for at least the reasons given for Claim 1. Claims 3-5, 7-10 and 14 depend from Claim 2 and are believed to be allowable at least due to their dependency on Claim 2.